

WHEN TRAUMA MEETS THE AORTA : THE UNSEEN DANGERS OF TRAUMATIC AORTIC DISSECTION

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INTRODUCTION

Traumatic aortic dissection (TAD) is a rare but life-threatening condition resulting from blunt or penetrating trauma. It occurs when an injury causes a tear in the intimal layer of the aortic wall, leading to blood accumulation between the layers of the aorta. We present a case illustrating this life threatening case

DISCUSSION

TAD is a rare but severe consequence of high-impact, rapid-deceleration trauma, usually classified as blunt injury without penetrating components.

Approximately 81% of blunt TAD cases result from road traffic accidents. Challenges in this case arose from the patient's critical condition and a subtle, non-classical presentation, including hemothorax without rib fractures or lung contusion, which can easily be mistaken for other conditions. Differentiating aortic dissection, which involves an intimal tear and false lumen, from aortic transection, a near-complete rupture of all aortic layers, is crucial for management. The traumatic aortic injury grading scale (grades I–IV) helps guide

CONCLUSION

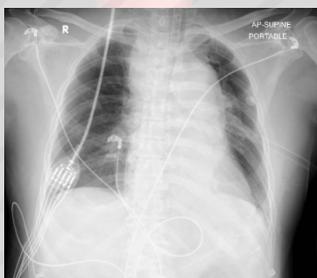
This case illustrates the diagnostic challenge of TAD after high-impact trauma. Maintaining a high index of suspicion and early CT angiography are key to prompt diagnosis and intervention, ultimately improving survival.

CASE DESCRIPTION

A 65-year-old male with hypertension, dyslipidemia and chronic kidney disease presented with motorcycle–buffalo collision. He appears restless with a GCS of 6/15. Airway was patent, trachea was central and cervical collar was applied. Vitals showed SPO₂ 74% on room air, respiratory rate 24/min, blood pressure 120/87 mmHg and pulse 80 bpm. Pupils were unequal. Examination revealed a 4cm occipital laceration and a 2cm toe wound with exposed tendon. He was intubated, sedated and supported with noradrenaline.

CT brain and cervical spine showed subarachnoid haemorrhage with C5–C6 fractures. Left foot X-ray revealed comminuted big toe fractures. Serial eFAST detected bilateral hemothorax and chest X-ray showed a widened mediastinum.

Given high suspicion of vascular injury in view of chest x ray noted widened mediastinum, bilateral hemothorax and persistent tachycardia, CT confirmed an aortic dissection involving the aortic arch, descending thoracic aorta and right subclavian artery. He was referred to multiple specialties, subsequently admitted to ICU and thoracic endovascular aortic repair (TEVAR) was planned



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